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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.	)))))	Rulemaking 06-03-004 (Filed March 2, 2006)

JOINT PROPOSAL OF THE CALIFORNIA SOLAR INITIATIVE PROGRAM ADMINISTRATORS RECOMMENDING A LOW INCOME MULTIFAMILY SOLAR PROGRAM

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Pursuant to the February 5, 2007 Assigned Commissioner's Ruling revising the schedule for Phase 2 of Rulemaking 06-03-004, Southern California Edison Company, Pacific Gas and Electric Company, and the California Center for Sustainable Energy (formerly San Diego Regional Energy Office) (together, the CSI Program Administrators) submit the following Recommended Low Income Multifamily Solar Program (MSP). The CSI Program Administrators have authorized Southern California Edison to file the MSP on their behalf. Consistent with the Assigned Commissioner's Ruling, the MSP represents a joint and collaborative effort on the part of the CSI Program Administrators and interested stakeholders. The CSI Program Administrators look forward to working with the Public Utilities Commission and interested stakeholders in finalizing a low income multifamily solar program.

Respectfully submitted,

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Attachment A
CSI Program Administrators'
Recommended Low Income Multifamily Solar Program

CSI Program Administrators' Recommended Low Income Multifamily Solar Program (MSP)

July 16, 2007

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1. Overview

This proposal describes a CSI Program Administrator (Pacific Gas and Electric Company, Southern California Edison, and California Center for Sustainable Energy, hereafter referred to as PG&E, SCE and CCSE) [1] recommended structure and implementation strategy for a $108 million solar photovoltaic (PV) incentive plan for qualified affordable multifamily housing projects as part of the California Solar Initiative (CSI).[2] The CSI Program Administrators (PAs) recommend providing incentives that substantially subsidize solar energy systems, which in combination with energy efficiency measures, will offset energy loads and provide economic benefits for low-income households and affordable housing providers.

Please note that the CPUC directed the Energy Division Staff to develop a separate proposed incentive program for single-family low-income residences, which was submitted to the CPUC by April 17, 2007 for public comment.

The California Solar Initiative (CSI) Low Income Multifamily Solar Program (MSP) design is based on a request for proposal (RFP) structure. The biannual RFP will ask bidders to propose one of or a combination of the three options: 1) Power Purchase Arrangement (PPA) Option, 2) the net energy metering (NEM) Option for Common Area Load, or 3) the NEM Option for Individual Tenant Load. The bidder will propose the amount of CSI subsidy needed to make the solar system viable for ownership. The bidder will have to explain how benefits from the system will be distributed to the affordable housing tenants (either through bill credits for power purchased, bill reductions due to additional energy efficiency measures, or some other means designed by the system owner). In addition, bidders will have to meet all mandatory program requirements (including basic energy efficiency upgrades) and specify the details of their proposal. Proposals will be evaluated on a six month cycle and the PAs will rank and award the most successful bids that best meet the objectives of the low-income affordable housing program.

1.1 Background

The CPUC is committed to helping create a sustainable market for solar technology through the California Solar Initiative. Through the CSI, residences (excluding new homes), businesses, non-profits and government agencies receive incentives to install solar PV systems.

In Decision 06-08-028,[3] the Commission directed Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Regional Energy Office (now named CCSE[4]) (in the SDG&E service territory) to administer the CSI program in their respective service territories.

In August 2006, Governor Schwarzenegger signed Senate Bill 1 (SB 1), which directed the CPUC to provide incentives for eligible "solar energy systems." Assembly Bill 2723 (AB 2723 or "the Pavley Bill"), which was signed by the Governor in September 2006, describes requirements for low-income

[1] Although SDG&E is not a CSI Program Administrator, it participated in the development of this proposal, providing information concerning its service territory and assisting in the evaluation of potential program designs.

[2] The Program Administrators would like to thank KEMA for their assistance in researching and developing this proposal.

[3] August 24, 2006

[4] In 2007, SDREO changed its name to the California Center for Sustainable Energy (CCSE).

solar incentives. It requires the CPUC to ensure that "not less than 10% of the overall funds for the California Solar Initiative are utilized for the installation of solar energy systems, as defined, on low-income residential housing, as defined."[5]

The Pavley Bill also allows the Commission to "modify the monetary incentives made available pursuant to the CSI to accommodate the limited financial resources of low-income residential housing," and to offer a loan program if appropriate. The CPUC 10-year CSI program has a total budget of $2.167 billion. Consistent with AB 2723, the CPUC has reserved 10 percent of the CSI's funds for an incentive program for low-income residences throughout California. As a result, $216.8 million is designated to provide incentives and financing for existing low-income single-family and multifamily residences. The February 5, 2007 "Assigned Commissioner's Ruling Revising Schedule for Phase Two" of Rulemaking 06-03-004 directed the program administrators to assume that one half of the total low income CSI budget ($108 million) would be allocated to the low-income multifamily strategy.

1.2 Program Administrators' Guiding Principles

At the outset of the process of developing this proposal, the PAs laid out several Guiding Principles for a successful CSI low income solar program for existing multifamily affordable housing that promotes the regulatory and legislative objectives of the California Public Utilities Commission and the Legislature. Although these Principles are aspirational and cannot all be maximized at once, they represent core values that were articulated by the PAs to guide program development. They are not ranked in any particular order.

1. Foster a Sustainable Solar Market:
    - Support the development of a sustainable solar market so that implementing solar on existing multifamily affordable housing is more feasible without subsidies or with limited subsidies after the program has reached completion.
2. Promote Energy Efficiency:
    - Leverage energy efficiency programs and technologies within the program wherever practical.
3. Share Benefits and Instill a Sense of Ownership:
    - Develop the program so that affordable housing can be both economically and environmentally more sustainable by ensuring that affordable housing developers, owners, managers, and tenants all receive financial and/or educational benefits from the program.
4. Promote Financial Efficiency:
    - Design the program to make the most cost-effective use of program funds by:
        - Maximizing the number of kilowatts installed per dollar spent
        - Leveraging tax credits and other funding sources wherever practical
        - Structuring program proposals to fairly balance program benefits, recognizing other forms of retained subsidies.

[5] AB 2723, Chaptered September 30, 2006, Statutes of 2006, became PUC Section 2852.

5. Simplify Program Administration:
    - Design the program so that it is easy to administer and user friendly.

1.3 Challenges in Developing a Low Income Multifamily Solar Program

1.3.1 Barriers to Solar Installations in Affordable Multifamily Housing

The low income multifamily affordable housing customer segment presents major barriers and complications not demonstrated in other solar market segments. Besides the fact that they do not own the buildings in which they reside, low-income tenants lack the upfront capital to invest in very expensive solar energy systems or major energy efficiency improvements and have very limited discretionary funds, if any. For this reason alone, individual tenants would not be expected to purchase a solar system themselves, and it will require a third party to finance and operate the system for the multifamily tenants.

Affordable housing owners generally leverage a significant amount of upfront financing at the time the building is developed. Because the MSP targets existing multifamily buildings, many owners will not be able to take on additional debt. As a result, owners of existing affordable housing are not expected to show high levels of participation unless they fall into certain refinancing windows as discussed later in this proposal.

With the exception of affordable housing owners that can assume additional debt during the refinancing window discussed below, third party non-building owners are the most likely candidates for participation in this program. These third parties will be able to arrange for the appropriate financing and system operations given the appropriate incentive level. Third party non-building owners will have to provide an economic incentive to affordable housing owners in order to use their building space for installation of solar energy systems, as well as benefits to the low-income tenants.

1.3.2 Additional Complexities

The existing affordable housing market has numerous complexities not experienced elsewhere in the CSI program. On May 2, 2007, the PAs held a meeting of low-income experts representing consumer groups, affordable housing developers, contractors, and financial experts. The following is a general list of some additional market complexities that were identified in the affordable housing multifamily context that add significant program design challenges:

- Limited roof space to install large systems that can offset the entire load for multi-story buildings that can be up to 10 stories tall;
- Statutory, regulatory, and financial complexities associated with metering and interconnection of solar energy systems in a multi-tenant configuration;
- Very high turn-over rates in rental property tenancy;
- Shifting occupancy between qualifying and non-qualifying tenants;
- Marketing and outreach to a uniquely situated subset of potential solar customers;

- Allocating benefits between the system owner (investor), property owner (if different from the system owner), and the low income tenants in light of the intent of the program, recognizing that the system owner will need to recoup his or her investment;
- Utilizing program dollars as effectively as possible recognizing that the majority of energy efficiency measures are more cost-effective than solar.

Through the program design proposed here, the Program Administrators sought to both address these complexities and further the goals established in the Guiding Principles above.

2. Eligible Population and Market Size Estimates

The eligible population for the low income multifamily solar program is defined by AB 2723, codified as Section 2852 of Public Utilities Code.

Section 2852(a)(2) of Public Utilities Code defines low-income residential housing that would be eligible for CSI incentives as either:

> "(A) Residential housing financed with low-income housing tax credits, tax-exempt mortgage revenue bonds, general obligation bonds, or local, state, or federal loans or grants, and for which the rents of the occupants who are lower income households, as defined in Section 50079.5 of the Health and Safety Code, do not exceed those prescribed by deed restrictions or regulatory agreements pursuant to the terms of the financing or financial assistance.
>
> (B) A residential complex in which at least 20 percent of the total units are sold or rented to lower income households, as defined in Section 50079.5 of the Health and Safety Code, and the housing units targeted for lower income households are subject to a deed restriction or affordability covenant with a public entity that ensures that the units will be available at an affordable housing cost, as defined in Section 50052.5 of the Health and Safety Code, or at an affordable rent, as defined in Section 50053 of the Health and Safety Code for a period of at least 30 years."

The size of the population of buildings that meets the first set of criteria is fairly easy to estimate. The Tax Credit Allocation Committee (TCAC) keeps a database of projects that have received tax credits as well as those that received bond allocations from the California Debt Limit Allocation Committee (CDLAC), or funding from the California Housing Finance Agency (CalHFA), or California Housing and Community Development (HCD). It is more difficult to estimate the number of projects that have received funding from one of the U.S. Department of Housing and Urban Development (HUD) programs or the Rural Housing Service (RHS). However, the PAs were able to obtain some data on these projects.

2.1 Market Size Under Section 2852(a)(2)(A)

The PAs estimate that there are approximately 2750 buildings (representing about 190,000 families), that meet the criteria of Section 2852(a)(2)(A).

Table 1: Projects Eligible Under PUC Section 2852(a)(2)(A)

	Total	TCAC	HUD	HFA	RHS
Potential Projects	**4,175**	1,603	1,831	243	498
Number of Units	**324,320**	1,515,883	133,056	16,235	23,196
Low-Income Units	**278,424**	139,926	110,257	12,216	16,025
Unique Projects (est.)	**2,750**				
Unique Units (est.)	**190,000**				

The PAs estimated this number by reviewing the California Tax Credit Allocation Committee's list of past participants in qualifying affordable housing programs. The PAs then discounted this number by removing projects that fell outside of the investor-owned utilities' service territories (i.e. buildings in municipal service territories) and eliminating "double counting" from projects that participated in more than one qualifying affordable housing program. Applying discounting factors for the overlaps and out-of-service territory issues mentioned above, it appears that there are potentially about 2750 projects,[6] representing about 190,000 families that could qualify under the first definition in PUC §2852.

2.2 Market Size Under 2852(a)(2)(B)

The population of buildings that meets the second set of criteria of PUC §2582 is harder to estimate. Properties that qualify under the 20% criteria of PUC §2582, but not the first set of criteria, are generally participants in programs by a local redevelopment agency, public housing authority (PHA), or similar organization. Data on these properties are not easily obtained. It will not likely be difficult for the PAs to verify properties' qualifications once the program is underway, but to gather data ahead of time on the size of this market is cost-prohibitive. Based on an interview with three prominent financial advisors to the affordable housing community, the PAs believe that only a handful of properties meet this criteria and not the previous one.

2.3 Tax Credit Refinancing Window of Opportunity

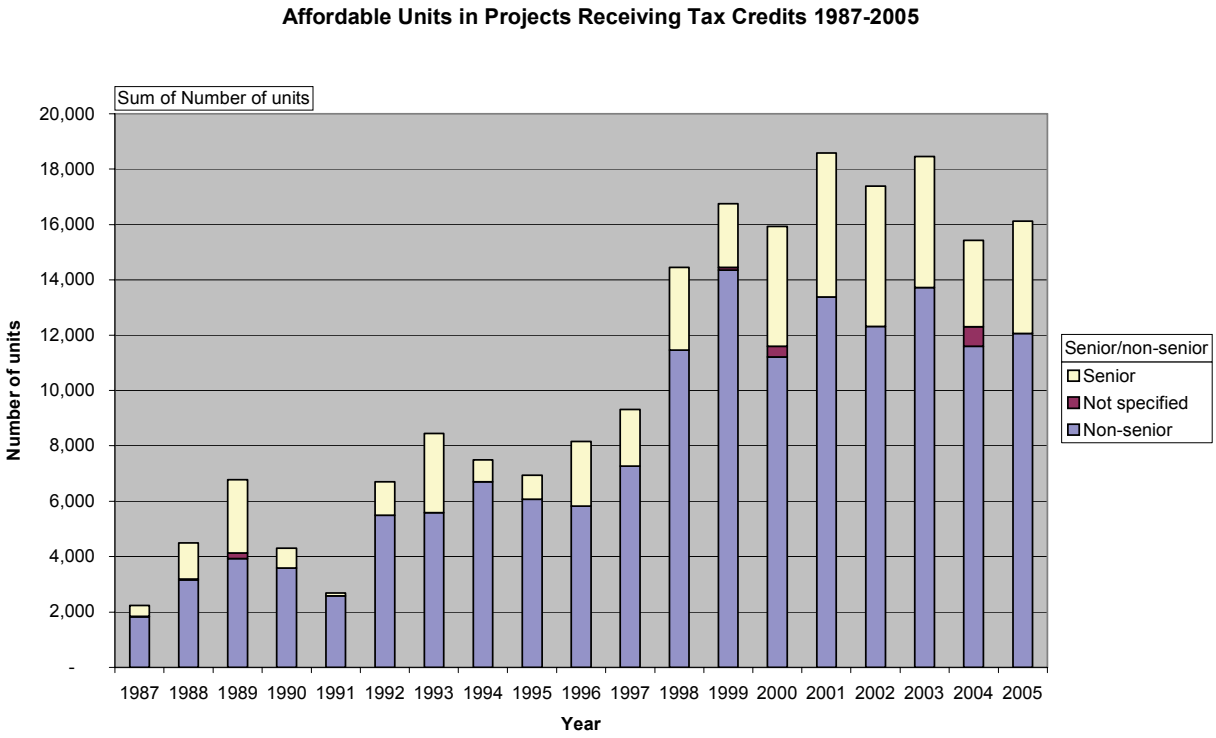
Depending upon the government funding source, virtually all affordable housing owners need to refinance at some point in the project's life. That refinance event is a prime opportunity for CSI program participation. From interviews with individuals in the affordable housing community, the PAs understand that affordable housing projects go through fifteen-year funding cycles, tied to the availability of affordable housing tax credits. Thus, at the end of one tax credit cycle, the project may be refinanced to begin another fifteen-year tax credit cycle or may receive financing from another entity with a different time table. At the point of refinancing, affordable housing project owners often seek to repair and/or upgrade the property. The PAs understand that once an affordable housing project is financed and locked into a ten, fifteen or other length window with a set of financiers, it is difficult for the owner(s) or investor(s) to take on any additional debt or costs. However, at the time the project is refinanced, adding

[6] This total (2750) represents roughly two thirds of the totals of the individual funded categories. The RHS projects were discounted by a third due to the potential overlap with the HUD projects, and the others were discounted by a third due to those that are likely in a municipal utility's territory. The TCAC portion of this number is just those that will reach the fifteen year refinancing window during the program. There are approximately 1000 more TCAC projects that could participate if the solar system owner were independent of the property's financing.

a relatively small amount of new debt (compared the total project cost) for building upgrades such as a solar energy system is much easier and likelier.

The chart below shows the rate at which tax credit units were built since 1987. As discussed above, the point at which the projects will undergo refinancing is fifteen years after award of the tax credits. Because that is a prime trigger point for participation in the MSP, the volume of construction since 1993 is of greatest interest. The graph shows that a higher number of projects per year will be coming available for refinancing after the initial five years of the program (2008-2012). Note that the tax credit projects are just one set of qualifying projects under PUC §2852.

Figure 1: Tax Credit Assisted Units By Year



2.4 Limiting Factors

Systems funded by the Proposal could be limited in size either by available roof area or by the maximum load of the building or some portion of the building being served. The PAs performed a billing analysis of a subset of the properties defined by the enabling legislation to see what the loads were like. Building description data on these projects were provided by TCAC, and load data were obtained from the individual Investor Owned Utilities. The PAs also estimated the roof area of the subject buildings for the potential participant buildings to determine which factor (roof area or electrical load) was more likely to limit system size. Assuming that all of the roof area was available, it would appear that building load is the controlling factor. However, because at least half the area of sloped roofs will be facing the wrong

direction, and much of the area of flat roofs will be dedicated to equipment and other obstructions, the maximum output by roof area shown in Table 2 should be halved to obtain a rough estimate. This means that roof area may also be the limiting factor.

Table 2: Common Area and Tenant Space Data

Assume	
Average # of residential meters	70
Average # of Common area meters	4
* Estimates from partial utility billing data for TCAC customers	
Roof area availability (Supply)	
Average Apartment Size (Sqft)	981
Average Max. Roof Area per Dwelling unit (Sqft)	630
Expected AC output (watt/sqft)	10
Expected AC output per dwelling (kWh/year)	10,402
Expected AC output per building (kWh/year)	**731,399**
*Estimates from TCAC 1993-2007 data	
Electricity usage (Demand)	
Av. monthly usage/res unit (kwh)	450
Av. monthly usage/comm area unit (kwh)	1,300
Expected electricity usage per building (kWh/year)	**437,453**
* Estimates from partial utility billing data for TCAC customers	

2.5 Estimated Market Penetration

As provided above, there are enough eligible projects for a robust multifamily low income CSI program. As discussed more fully below, the actual market penetration of the multifamily low income CSI program will depend greatly on the participation of the market in the RFP process, and the incentive level that is bid by program participants. The higher incentives that are bid, the fewer incentive dollars will be available. The PAs are hopeful that the competitive RFP approach will encourage bidders to seek only the amount of incentive necessary to make the project viable, so that the maximum number of projects and MWs can be obtained for the fewest incentive dollars.

3. Proposed Multifamily Low-Income Solar Program Design

The following proposal includes the program strategy for multiple target markets, incentive structure, energy efficiency requirements, budget, administrative structure, and evaluation. The mainstream CSI program strategy aims to create a self sustaining solar market by 2016. To the extent possible, the low-income incentive program should work within this framework to help reach qualified affordable properties that most likely do not have the financial means to purchase and benefit from solar technology at the incentive levels available through the mainstream program.

3.1 Competitive RFP Structure

The basic structure of the proposed program format will be a request for proposal (RFP) process for funding of a specific solar project on a low-income multi-family dwelling. The primary objective of the RFP process is to foster innovation in this challenging market segment and stimulate partnerships that provide benefits to the low-income tenants including bill credits, energy efficiency upgrades, training and community outreach.

This affordable housing multi-family market segment is complex. It is common for an affordable housing project to have seven different sources of funds involved in funding construction, retrofit, refinancing, syndication restructuring, or just upgrades. A competitive RFP process that invites innovative approaches will help facilitate creative ways of sharing the PV benefits with the tenants, and will provide valuable feedback on making a PV project viable. The PAs expect that teams composed of property owners, financial experts who regularly consult with the affordable housing industry, and solar installers will find ways to meet the needs of the community cost-effectively.

The RFP will state criteria for an acceptable proposal and describe those elements that are open for bidding. Bidders will be asked to provide a proposed method for transferring a portion of the value derived from the PV system to the tenants. In addition, bidders will be asked to propose an incentive level. Of course, the underlying objective is to encourage incentive bids that result in viable projects. There will be pressure to keep the proposed incentive level as low as possible due to the competitive bid process.

The RFP will also require bidders to develop an outreach and training plan that will include training for both system owners and tenants. See Section 3.2.2 for more details.

Bidders in the RFP process will have to select one (or a combination) of the three options below in making their proposal and describe their proposed project structure. Due to the differences in financial incentives that a bidder will receive beyond their request for an upfront CSI $/watt incentive, the PAs will consider all of the financial attributes of each option (including cost-effectiveness, amount of ratepayer subsidy provided, value of tenant benefits, etc.) on a dollar-for-dollar comparative basis in determining the most cost-effective use of ratepayer funding.

3.1.1 Option 1: RFP with Power Purchase Arrangement

Under this option, the utility within the service territory would agree to buy all of the power produced at the site at the Market Price Referent (MPR, currently approximately 8 cents/kWh)[7] for a period of up to 10 years. The PPA would be structured such that the utility holds back a specified portion of the energy payment for bill credit to the tenants. The minimum percentage of benefits shared with the tenants would be determined by the CPUC. If the PV system owner is **not** the property owner, then the proposal would specify that the property owner would also get a specified benefit (*e.g.*, monthly payment).

Within the PPA option:

[7] The Market Price Referent is the method established by the Commission to price renewable power.

- The bidder will propose an incentive amount necessary to make the project viable. The PAs suggest that the CSI incentive be upfront, and that funded systems meet minimum design criteria to be established by the Commission.
- All power from the system is sold to the utility. All power serving the site is purchased from the utility. The length of the PPA will be established by or in consultation with the utility, and specified in the RFP.
- The system owner will receive the requested incentive, as well as payments for energy delivered to the utility.
- Payment for the energy under the PPA will be allocated to the system owner and the tenants in some set percentage to be proposed by the bidder in the RFP process provided the bidder can meet the total percentage requirement established by the Commission. For example, the system owner may receive 90% of the energy payments, with 10% reserved for tenant bill credits.
- Once the percentage allocation is set, the PAs would determine the expected performance of the system and calculate a fixed monetary payment to the tenants accordingly. Under this approach, the system owner would bear the risk of system non-performance which would encourage proper system maintenance.[8]
- None of these transactions affect the rent paid by the tenants.

3.1.2 Options 2 and 3: RFP with Net Energy Metering

The Net Energy Metering (NEM) statute defines an "eligible customer generator" as "a residential, small commercial customer as defined in subdivision (h) of Section 331, commercial, industrial, or agricultural customer of an electric service provider, who uses a solar or wind turbine electrical generating facility, or a hybrid system of both, with capacity of not more than one megawatt that is located on the customer's owned, leased or rented premises, is interconnected and operates in parallel with the electric grid, and is intended primarily to offset part or all of the customer's own electrical requirements." Section 2827(b)(2). NEM is accomplished by "spinning a customer's meter backwards," and thus requires a solar energy system to be interconnected to a single customer's meter which can run bi-directionally. The NEM statute is thus applicable to individual customer installations that are interconnected to individual customer meters.

There are two project configurations that are currently available to system owners and/or developers within this statutory framework. First, an owner may opt to put in one or more solar energy systems to serve common area (or master metered) loads. Second, an owner may opt to put in combination of individual systems per tenant meter as well system(s) for common area loads.

3.1.2.1 Option 2: System(s) Sized to Serve Common Area Load(s)

Under this option, a system owner would connect a solar energy system or systems to the common area meter(s). In this scenario, the project owner will need to demonstrate how benefits will be shared with the tenants. If sufficient tenant benefits cannot be demonstrated, it would be more appropriate for such a

[8] If system fails to produce enough energy to cover the cost of the tenant bill credits, the utility will not be responsible for continued tenant bill credits until the system is restored.

project to apply through the mainstream CSI. Tenant benefits could be in the form of additional energy efficiency improvements (above what is required to participate in the program), lower rent, or other benefits designed by the bidder.

3.1.2.2 Option 3: Individual Systems for Each Tenant

Under this option, a developer may opt to put in many individual solar energy systems – one for each tenant. For example, the Solara project in Poway is a new 55 unit affordable housing complex with 63 PV systems and 63 inverters (8 for common area loads). This option mirrors the mainstream CSI in which all projects are subject to NEM. With this option, the developer must also describe how benefits will flow to the property owner and/or system owner.

3.2 Other Program Requirements

Apart from the program design elements discussed above, the majority of the program requirements will mirror those of the broader CSI, including but not limited to maximum system size, warranties, equipment certification, and metering. However, the PAs do recommend modifications to a few of the current CSI rules to more appropriately fit the intent and goals of the low income multifamily program, as discussed below.

3.2.1 LIEE and Other Energy Efficiency Requirements

SB 1 requires that by "January 1, 2008, the [CPUC], in consultation with the [Energy Commission], shall require reasonable and cost-effective energy efficiency improvements in existing buildings as a condition of providing incentives for eligible solar energy systems, with appropriate exemptions or limitations to accommodate the limited financial resources of low-income residential housing." The PAs recommend that program participants be required to incorporate cost-effective energy efficiency measures in their buildings in order to minimize the size of a system that would be required. The utility and third party energy efficiency programs, combined with the benefits of the utility Low Income Energy Efficiency (LIEE) programs, complement CSI objectives by promoting energy efficiency and reducing energy expenses for low-income multifamily households.

In the event that tenants within a candidate participant property meet eligibility requirements under both the CSI low-income and LIEE programs, the PAs recommend coordinating with the LIEE program to provide energy efficient upgrades funded from LIEE budgets. These efforts should help these customers understand the suite of available energy management options as well as help them determine which or what combination of these options makes the most sense given their specific situation.

In the event that properties, or rather their tenants, do not meet the LIEE program requirements, the PAs recommend a coordination effort with appropriate energy efficiency programs to fund measures that can reduce the electricity load. If a sufficient number of tenants of the applicant property are not eligible to receive LIEE-subsidized weatherization services, the property should still be required to undergo an energy-efficiency audit, undertake basic weatherization measures, and be required to undertake energy efficient upgrades that have up to a two-year payback before receiving the solar incentive.

Energy efficiency measure installation will be verified by the solar system owner or property owner. Cost of the verification can be included in responses to the RFP and should be called out specifically.

Note that in addition to these baseline energy efficiency requirements, a system owner may install additional (incremental) energy efficiency measures as a way of providing benefits to tenants in a common area NEM proposal, as discussed further below.

3.2.2 Outreach for Tenants and Building Owners

All successful proposals to the MSP program will be required to have an Outreach and Training element. Projects will be expected at a minimum to include what kind of training they will offer tenants, building maintenance staff, and property owners in the benefits and care of PV systems. Superior proposals will be judged by how well the proposing team will meet the MSP goal of training owners, tenants and others about PV installations and operations. Training should be provided by experienced trainers and in locations both convenient to the intended participants, and appropriate to the PV related topics covered.

First, proposals are expected to show how property owners who are also system owners will be trained on monitoring and maintaining their systems. This training will be a condition of a proposal but could also be coordinated more broadly with training being done by the PAs. Second, the proposal will need to show how tenants will be trained on the value of the system on their residence, the new energy efficiency measures installed as part of the project qualifications, and other energy efficiency actions they can take. Beyond any handouts or classroom training, all systems will be required to have at least a visual display of solar system performance on-site for tenants to view.

3.2.3 Equipment Size Limited by On-Site Electrical Load

To be eligible, a system must be sized so that the amount of electricity produced by the system is no more than what would be required to offset part or all of the electrical needs at the affordable housing site. Current CSI rules limit the system size to the 12 month historical usage of the Host Customer. The PAs seek to modify this requirement to allow the project owner to size the system to include the sum of individual units' loads plus common area loads. Thus, under the proposed rules, the expected production of electricity by the system may not exceed the actual energy consumed during the previous 12 months at the site, as calculated per the following formula:

Maximum System Capacity (kW) = 12-months previous energy usage at the site, including both tenant and common area loads (kWh) / (0.18 x 8760 hours/year)

The Applicant must show evidence of the system sizing with the submittal of the initial application.

3.2.4 Allowance of Power Purchase Arrangement

Currently, the CSI Handbook excludes from eligibility those customers "who have entered into agreements that entail the export and sale of electricity from the Host Customer Site." Section 3.1.1 of this proposal would require a different approach for the low income program. The prohibition against PPAs is rightfully meant to prevent merchant generators from receiving CSI incentives. Here however, a power purchase arrangement is intended to provide an alternate revenue stream when NEM is not available under the plain language of the NEM statute, or is not economically feasible for getting benefits to the affordable housing tenants. If the system is truly and verifiably sized to meet tenant and common area loads (i.e., the loads at the affordable housing installation site), the PAs believe a PPA is appropriately allowed.

3.2.5 Application Fees and Re-application

The Program policy on application fees will mirror the CSI Program. In order to minimize projects dropping out after the bid award, application fees will be required at the time the applicant's proposal is awarded. Applicants with projects that are less than 10 kW need not pay an application fee. The application fee is 1 percent of the unadjusted requested MSP incentive amount. Application fees will be rounded to the nearest dollar.

Upon successful completion and inspection by the PA of the proposed project, the application fee will be returned in full to the applicant. If, after bid award, a project reservation is cancelled, or fails to meet the bid requirements or reservation expiration requirements, the application fee will be forfeited. The forfeited fees will be re-allocated to the Program Administrator's low income multifamily incentive budget.

Projects will be allowed to re-enter future RFP-cycles if their previous bid(s) were unsuccessful.

3.3 RFP Process

3.3.1 Application and Bid Selection

The responses to the RFP will be judged by how well they meet the goals of the program. The agreement for the PA to fund the PV system installation will include a requirement that the system owner demonstrate that the solar energy system benefits are being transferred to the tenants, either through the PPA bill credit, or if the bidder elects a NEM configuration, in another manner such as through additional energy efficiency upgrades. For properties with LIEE qualified households, participation in LIEE will be a threshold requirement. For non-LIEE eligible properties, as discussed above, energy efficiency improvements with a short payback period will be required.

The PA will provide an RFP for potential participants listing the details that they are to assume, details that are fixed, and details upon which that their bids will be evaluated. Within the RFP, the PAs will provide a proposal format including a spreadsheet for all the pertinent information. Information requested in the proposal will include, but is not limited to:

- Number of customers served, and the percentage of those customers who are low income
- Incentive level requested
- How benefits will be distributed to tenants (either through PPA payments, tenant NEM or through some other means)[9]
  - If the direct tenant benefit is energy efficiency investments to lower their bills,
    - How much the bills are expected to be lowered, or
    - How much is proposed to be spent on Energy Efficiency improvements

[9] The utility is the entity that will be "paying" the tenants via bill credits. For the sake of simplicity this distinction is not made each time the issue is discussed in this proposal.

- If the property owner is not the PV system owner, how much the system owner proposes to return to the affordable housing property owner each month
- Who owns the system and the period of ownership.

The PAs propose setting certain details that all bidders have to accept and acknowledge in their bids including:

- Minimum amount of financial benefit to be transferred to the tenants, either in the form of bill credits, bill reduction, energy efficiency investments, or other mechanisms for benefit transfer
- Maximum rebate amount that can go to any one company (e.g., solar contractor or property owner)
- Cents/kWh at which the PV energy will be purchased, e.g., MPR[10], if the PPA option is proposed

Responses to the RFPs will be judged against the Guiding Principles discussed at the beginning of this program proposal. In the description of their proposed projects, bidders should make an attempt to show how their proposals fulfill the Guiding Principles. As specific criteria for judging how well individual bids meet the goals, the PAs will use the following scoring criteria. Note that the weighting of the various criteria is not necessarily related to the order of the list. Specific weighting information will be provided at the issuance of the RFPs.

- Cost Effective Use of MSP Funds – all costs and benefits will be evaluated on a dollars for dollars basis, and projects that deliver the greatest amount of benefits (including kWh installed) for the least amount of ratepayer dollars will receive higher scores.
- Amount of Benefits to be Shared with Tenants – sharing a higher percentage of the on-going value of the PV output with the tenants would result in a higher score.
- Description of Low-Income Qualifying Tenants – because tenants with varying levels of income could reside in a building eligible for MSP funds, higher scores can be expected for projects that serve the lowest income categories or a greater percentage of low income tenants.
- Experience with Affordable Housing and PV Systems – to ensure that the MSP funds are well spent, scoring preference will be given to project teams based on the amount of experience team members have with the affordable housing community, and the amount of experience team members have with solar PV installations.
- Effective Outreach and Training – all proposals will be required to provide an outreach and training plan, and those that identify effective ways of training tenants, owners and maintenance staff on the benefits of PV will score higher.
- Benefits to Affordable Housing Community – an example of demonstrated benefits to the affordable housing community would be structuring a third party

[10] The MPR is established by the CPUC as the reasonable price for renewable energy. The price is currently approximately $0.08/kWh for a 10 year contract.

proposal so that ownership of the system reverts to the affordable housing property owner well before the end of the system's useful life.

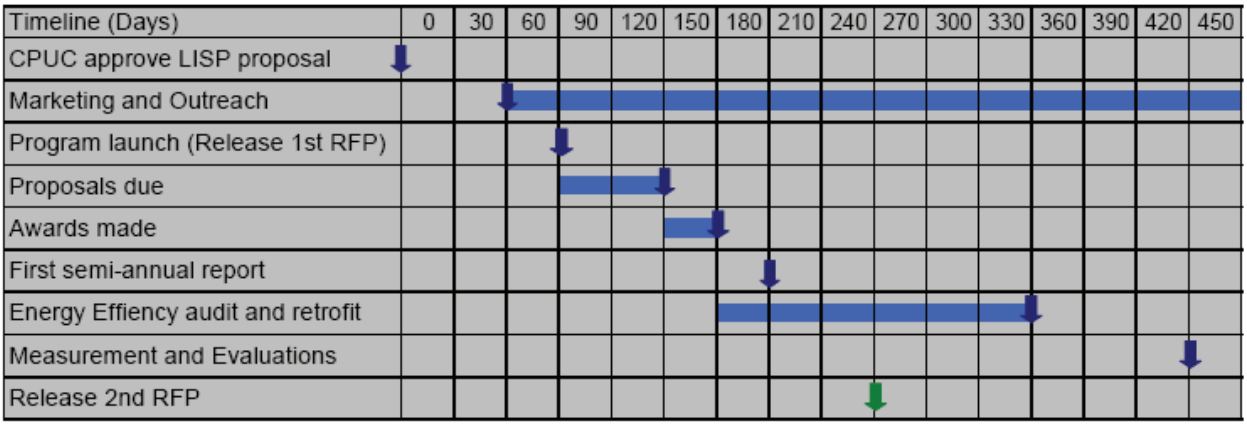
- Completeness and Clarity of the Proposal – proposals that make it easy for reviewers to understand the financial and other relationships involved will score higher; as will those that do not omit any relevant information.

3.4 Timeline

To determine the optimal cycle for the RFP process, the PAs interviewed several affordable housing project syndicators. Based on these discussions, the PAs recommend allocating roughly a one fifteenth portion of the entire budget for MSP each six months. To the extent proposals in any RFP cycle do not meet minimum criteria as determined by the PAs in the RFP process, the PAs reserve the right to reject those proposals and any funds left from earlier rounds will be added to the next round. This will allow for a gradual learning process so that the PAs can improve the program design over time and ensure the proper use of program funds. It also provides a reasonable window of opportunity for bidders who need to get partners and other funding sources lined up. If the RFP cycle were less frequent, then affordable housing projects that need to restructure their overall debt at certain points in time might not be able to wait for the "next round" in MSP.

The PAs propose to start the Marketing and Outreach effort sixty days after the program design is approved by the CPUC, and to launch the program (i.e., issue the first RFP) thirty days after that. The PAs recognize the need to notify stakeholders of the program and timing of the RFP prior to the issuance of an RFP to get full participation. The PAs will give bidders sixty days to submit proposals and will make awards to superior proposals within thirty days of when proposals are due. The second RFP will be released approximately 180 days after the first one. The PAs propose to deliver RFP progress reports to the CPUC ninety days following each date of awards. The measurement and evaluation work should begin approximately one year after the launch date of the program. See the figure below (Table 3) for details.

Table 3: Multifamily Low-Income Solar Program (MSP) Timeline



3.5 Budget

In accordance with CPUC Decision 06-12-033, which sets out CSI program budgets per IOU, the proposed breakdown of the total low-income budget by PA is as follows:

Table 4: CSI Program Budget by Program Administrator

Program Administrator	% Total Budget	CSI Budget ($M)	Low-Income Budget ($M)	Multifamily Low-Income Budget ($M)
PG&E	43.7%	$947	$94.7	$47.35
SCE	46.0%	$997	$99.7	$49.85
CCSE	10.3%	$223	$22.3	$11.15
Total	100%	$2,168	$216.8	$108.40

The proposed breakdown of the total budget and the annual budget is displayed in Table 5.

Table 5: Total Multifamily Low-Income Solar (MSP) Budget

Category	Total $ Budget	% Total Budget	$ Per Annum
Incentives	$92,140,000	85%	$11,517,500
Administration	$9,756,000	9%	$1,219,500
Marketing & Outreach	$5,420,000	5%	$677,500
Evaluation	$1,084,000	1%	$135,500
Total Budget	$108,400,000	100%	$13,550,000

Note that Marketing and Outreach will actually be heavily front-loaded in the schedule and the stated average per year is not reflective of what the PAs intend should be spent in any one year. Likewise, there will be no evaluation activity the first year and evaluation may have episodically high and low budget years.

4. Marketing, Outreach and Training

The PAs propose to develop targeted marketing and outreach programs for the two market segments defined by PUC §2852.

The PAs will manage a marketing and outreach program that targets affordable housing property owners and customers. Marketing and Outreach will focus particularly on developing relationships with the entities that play a key role in the affordable housing market, and educating those stakeholders concerning the benefits of solar. The plan aims to help stakeholders in the existing affordable housing market understand how solar PV systems can help reduce tenants' energy bills and benefit the environment. It will also reach out to potential stakeholders outside of the low income market, for example, solar industry and energy efficiency contractors, who might be interested in working with the affordable housing market. The marketing and outreach program will include dedicated website content, brochures, and workshops.

The training program will educate incentive recipients on PV installation, inspection, and maintenance. In particular, the training program will focus on issues that are unique to multifamily housing projects. There will also be classroom training, in collaboration with the regular CSI program that informs participants on solar energy systems, energy efficiency, financing options and customer behavioral changes. Furthermore, information will be provided regarding where and how participants can obtain state assistance for energy efficiency improvements.

5. Program Evaluation

5.1 RFP Progress Reporting

During program implementation, the administrators will report to the CPUC on the progress of the RFP process within 90 days of each RFP cycle. This report will include lessons learned from bidders' innovative approaches to using program assistance, total number of proposals received, dollars requested, and other important program details.

5.2 Process Evaluation

The PAs propose to contract with an independent consultant to evaluate the program after the first year and every two years thereafter. The PAs will work with the consultant to draft an evaluation plan.

5.3 Impact Evaluation

The PAs propose that impact evaluation for the MSP will be a component of the overall CSI program evaluation.

6. Appendix A: Program Designs not Recommended

6.1 Direct Install/100% Subsidy

Certain members of the public recommended that the most effective way to assist the affordable housing industry to adopt solar PV technology would be to provide the systems for free. The PAs concluded that this was not a cost effective use of limited program dollars. Clearly, fewer kW of PV would be installed for the same money. The PAs concluded that even though the Legislative intent for this pot of money was not to foster a price reduction in the PV industry, that complete purchase of systems would upset the market's current evolution. Additionally, it would not encourage any truly innovative thinking about how to structure assistance to the affordable housing market sector. The PAs rejected program designs based on 100% subsidy or direct install.

6.2 Loan Program

The PAs did not pursue this option because of the administrative costs associated with program administrators creating and running a lending infrastructure. Much of what affordable housing owners currently receive to assist with construction, energy efficiency improvement or even solar installations, is loans from bona fide lenders. The PAs felt that to create a loan program would compete with those lenders, and probably not very cost-effectively. Additionally, depending on the structure of the loan program, the PAs may have been legally required to become licensed lenders. Moreover, to be viable with this market, a loan program would need to have a long payback period. The PAs felt that a long payback period would be incompatible with a program slated to end in ten years or less.

7. Appendix B: Acronyms

Note that this Appendix provides explanation for the acronyms used in this proposal as long as they are in addition to or different from those used within the mainstream CSI program and Guidebook.

CalHFA:
California Housing Finance Agency, one of the state agencies that makes funding available for affordable housing.

California Center for Sustainable Energy (CCSE):
A Non-Profit 501(c)3 corporation that implements the CSI program on behalf of SDG&E.

HCD:
California Department of Housing and Community Development, one of the state agencies that makes funding available for affordable housing.

HUD:
U.S. Department of Housing and Urban Development, the primary federal agency that makes funding available for affordable housing.

LIEE:
Low Income Energy Efficiency program, a statewide utility program offering free weatherization, appliances and energy education to qualifying low income customers of PG^E, SCE, SDG&E and Southern California Gas Company.

MPR
The Market Price Referent is the method established by the California Energy Commission to price renewable power and is currently approximately 8 cents per kWh for ten year contracts.

MSP:
Multifamily Low-Income Solar Program, the subject of this Proposal.

Power Purchase Agreement (PPA):
For the purposes of this proposal, the Power Purchase Agreement refers to a contract entered into by an independent power producer and an electric utility.

Program Administrator (PA):
For purposes of the CSI program, PG&E, SCE & CCSE (which administers the program in SDG&E territory).

Project:
For purposes of the MSP, a "Project" is the installation and operation of the proposed eligible PV system(s) at the proposed eligible site, as described by the submitted Reservation Request documentation.

RHS:
U.S. Rural Housing Service, formerly known as the "Farm Home Administration," is one of the federal agencies that makes funds available for affordable housing.

TCAC:
The California Tax Credit Allocation Committee - a branch of the State Treasurer's Office that handles allocation of state and federal Low-Income Housing Tax Credits (the primary source of funding for supporting construction and renovation of affordable housing).

CERTIFICATE OF SERVICE

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of the JOINT PROPOSAL OF THE CALIFORNIA SOLAR INITIATIVE PROGRAM ADMINISTRATORS CONCERNING A LOW INCOME MULTIFAMILY SOLAR PROGRAM on all parties identified on the attached service list(s). Service was effected by one or more means indicated below:

Transmitting the copies via e-mail to all parties who have provided an e-mail address. First class mail will be used if electronic service cannot be effectuated.

Executed this **16th day of July, 2007**, at Rosemead, California.

/s/ CHRISTINA SANCHEZ
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